

**REMARKS/ARGUMENTS**

Claims 1, 6, 11, 12, 14, and 21-26 are pending in the instant application. Claim 1 has been amended in order to expedite prosecution. Claims 2-5, 7-10, 13, 15-20, and 27-34 are cancelled. Claims 6, 11, 12, and 14 have been withdrawn. The language from page 6 lines 27-28 and page 7 lines 1-2 of the specification has been incorporated into claim 1. No new matter has been added to amended claims 1 and 6 or any other claim disclosed herein.

**35 USC 112 rejection**

Claims 1 and 21-26 stand rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner states that it is unclear as to how at least one of the halogen substituents for R<sup>2</sup>, R<sup>8</sup> and R<sup>12</sup> is an imaging moiety as there is no radionuclide indicated in the claims. Applicant has amended claim 1 to recite that at least one of R<sup>2</sup>, R<sup>8</sup> and R<sup>12</sup> is selected from <sup>123</sup>I and <sup>18</sup>F. Applicant submits that this amendment to claim 1 makes it clear exactly what is intended with R<sup>2</sup>, R<sup>8</sup> and R<sup>12</sup> and respectfully requests that the rejection be withdrawn.

**35 USC 102 rejection**

Claims 1 and 21 are rejected under 35 USC 102 as being anticipated by Weinstock et al (WO 00/78145). Specifically, the Examiner states that the halogen substituents of

Weinstock anticipate the halogen substituents of the instant claims and are therefore capable of the same properties, such as being an imaging moiety. Applicant notes that the compounds encompassed by claim 1 as currently amended comprise  $^{123}\text{I}$  or  $^{18}\text{F}$ . There is no disclosure in Weinstock of any halogen substituent being either gamma-emitting or positron-emitting (a fact acknowledged by the examiner under point 20 of the communication). Claim 1 as presently amended, along with claim 21 which comprises all the features of claim 1, is therefore not anticipated by Weinstock.

**35 USC 103 rejection**

Claims 1, 6 and 21-26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Weinstock et al. (WO00/78145A1) in view of Edwards et al (WO02/067761) and in further view of Choi (US5820873). This rejection is respectfully traversed.

Claim 1 has been amended so as to specify that the synthetic MSRA antagonist is of Formula II and that at least one of  $\text{R}^2$ ,  $\text{R}^8$  and  $\text{R}^{12}$  is selected from  $^{18}\text{F}$  or  $^{123}\text{I}$ .

Weinstock provides MSRA antagonists that are sulphonamido benzamide compounds for use in treatment of cardiovascular disease. Weinstock does not disclose that the MSRA antagonists are labeled with radioactive halogens, let alone specify that these are to be selected from  $^{123}\text{I}$  or  $^{18}\text{F}$ . Furthermore, Weinstock does not provide any particular motivation

to the skilled person to place fluoro or iodo preferably at the positions specified in the instant claims, i.e. at  $R^2$ ,  $R^8$  or  $R^{12}$ .

Edwards provides compounds for *in vivo* imaging atherosclerosis and vulnerable plaque that comprise an MSRA antagonist linked to a metal chelate, where the metal chelate comprises a metal that is an *in vivo* imaging moiety. Suitable *in vivo* imaging moieties of Edwards include  $^{99m}\text{Tc}$ ,  $^{111}\text{In}$  and  $^{113m}\text{In}$ . The teachings of Edwards do not include any suggestion that the *in vivo* imaging moiety should be selected from  $^{123}\text{I}$  or  $^{18}\text{F}$ .

Combining the teachings of Edwards with those of Weinstock does not result in a sulphonamidobenzamide derivative labeled at  $R^2$ ,  $R^8$  or  $R^{12}$ . Combining the teachings of Edwards with those of Weinstock also does not result in a sulphonamidobenzamide derivative labeled with  $^{123}\text{I}$  or  $^{18}\text{F}$ .

The combined teachings of Edwards and Weinstock therefore do not specifically lead to the imaging agent encompassed by claim 1.

The teachings of Choi relate to polyethylene glycol modified ceramide lipids and their use in liposomes or other lipid-based carriers. The Examiner relies on the passage at column 14 lines 51-55 to support that  $^{99m}\text{Tc}$  and  $^{125}\text{I}$  are analogous gamma-emitting radionuclides. Applicant submits that this passage of Choi is unreliable as a teaching relating

to gamma-emitting *in vivo* imaging moiety. First of all, Applicant notes that  $^{99}\text{Tc}$  is referred to rather than  $^{99\text{m}}\text{Tc}$ .  $^{99}\text{Tc}$  is an isotope of technetium which decays with a half-life of 211,000 years to stable  $^{99}\text{Ru}$ , emitting soft beta rays, but no gamma rays. Applicant also notes that  $^{125}\text{I}$  is regarded as an *in vitro* marker rather than an *in vivo* imaging moiety. For *in vivo* imaging applications, it is known that  $^{131}\text{I}$  and  $^{123}\text{I}$  are more suitable (see article by Swanson and in particular page 574 left-hand column). The person skilled in the art of *in vivo* imaging would therefore not look to Choi as a reliable teaching in this field.

Applicant respectfully submits that the Examiner has inadvertently applied knowledge of the present invention in formulating the 103 rejection. “The prior art itself must provide a motivation or reason for the worker in the art, without the benefit of the Applicant’s specification, to make necessary changes in the reference device”. See, *Ex parte Chicago Rawhide Manufacturing Co.*, 226 U.S.P.Q. 438 (PTO Bd. App. 1984). It is well settled in the law that a reference must be considered not just for what it expressly teaches, but also for what it fairly suggests to one who is unaware of the claimed invention. *In re Baird*, 16 F.3d 380, (Fed. Cir. 1994). Accordingly, even if the skilled person were to decide to radiolabel the compounds of Weinstock based on the teachings of Edwards, and also substitute the metal chelate of Edwards with a radioactive halogen, Applicant submits that none of the cited prior art documents provides any guidance to the skilled person as to specifically placing  $^{123}\text{I}$  or  $^{18}\text{F}$  at  $\text{R}^2$ ,  $\text{R}^8$  or  $\text{R}^{12}$ . Claim 1 as presented herein is therefore now obvious over the combined teachings of the cited prior art.

**Conclusion**

In view of the amendments and remarks, hereinabove, Applicants respectfully submit that the instant application, including claims 1, 6, and 21-26 are pending in the instant application, are patentably distinct over the prior art. Favorable action thereon is respectfully requested.

The Examiner is invited to telephone the undersigned in order to resolve any issues that might arise and to promote the efficient examination of the current application.

Respectfully submitted,

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